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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,455	03/18/2004	Seth A. Foerster	A-1916	,5528

7590 01/04/2007
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EXAMINER

WOO, JULIAN W

ART UNIT	PAPER NUMBER
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3731

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/803,455

Applicant(s)

FOERSTER, SETH A.

Examiner

Julian Woo

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/30/04, 1/3/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 12-14, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohi et al. (4,946,467). Ohi et al. disclose, in the figures and in col. 3, line 45 to col. 4, line 35, a suture strand with core including a plurality of core fibers made of a fibrous first material (e.g., polyester) and a cover surrounding the core, where the cover is made of a fibrous second material (e.g., silk), where the core fibers are arranged in a twisted bundle, where the cover fibers are arranged to form a woven annular band, where the first material has a high tensile strength material, where the core fibers comprises a bundle of filaments of the first material, where the cover fibers comprises a bundle of filaments of the second material, where each of the core fibers is substantially circular in cross section,

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 3731

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 7-11, 20-22, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohi et al. in view of Hill et al. (6,045,571). Ohi et al. disclose the invention substantially as claimed, but do not disclose a first material that comprises a high molecular, high tenacity material or polyethylene; where the second material is a polymeric material selected from the group as claimed in claim 9, where the second material is substantially opaque, where the first material is substantially transparent, and where each of the cover fibers has a substantially circular cross section and diameter greater than the diameter of each of the core fibers. Hill et al. teach, in figures 3 and 3A and in col. 7, line 17 to col. 9, line 15, a first material with a high molecular, high tenacity material or polyethylene; a second material that is a polymeric material selected from the group as claimed in claim 9, and where each of the cover fibers has a substantially circular cross section and diameter greater than the diameter of each of the core fibers. It would have been a matter of design choice to choose a first material with a high molecular, high tenacity material or polyethylene; a second material that is a polymeric material selected from the group as claimed in claim 9, and where each of the cover

Art Unit: 3731

fibers has a substantially circular cross section and diameter greater than the diameter of each of the core fibers. Such choices would be dependent upon the desired strength, flexibility, bioabsorbability, and hand for a suture strand. And depending on the choices of materials for the first and second materials, it would be a matter of design choice to apply a substantially opaque or transparent material. The choices would be dependent upon the type material, the thickness of material, and the desired appearance of the suture. In short, it has been held to be within the general skill of a worker in the art to select known materials on the basis of their suitability for the intended use.

5. Claims 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohi et al. in view of Kaplan et al. (5,019,093). Ohi et al. disclose the invention substantially as claimed, but do not disclose that each of the core fibers is substantially wedge-shaped in cross section. Kaplan et al. teach, in figures 7 and 9, core fibers having a substantially wedge-shaped cross section. It would have been obvious to one having ordinary skill in the art at the time the invention was made, in view of Kaplan et al, to modify the core fibers of Ohi et al., so that they have a substantially wedge-shaped cross sections. Such a shape would produce a smooth suture strand that would allow resistance-free passage of the suture strand through tissue.

6. Claims 16-19 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohi et al. in view of Perciaccante et al. (4,047,533). Ohi et al. disclose the invention substantially as claimed, but do not disclose a core, where a sub-core comprises at least one core fiber and an outer ring comprises a plurality of core fibers. Perciaccante et al. teach, in figures 1 and 2, a suture strand with a core,

Art Unit: 3731

where a sub-core comprises a single core fiber and an outer ring comprises a plurality of core fibers. It would have been a matter of design choice to modify the suture strand of Ohi et al., so that it has the core fiber configuration taught by Perciacante et al. The choice would be dependent upon the desired strength, flexibility, bioabsorbability, appearance, and hand for a suture strand.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dunn et al. (4,731,084), Aikins (4,917,700), and Kaplan et al. (5,217,495) teach suture strands each including a core and a cover. Silvestrini et al. (4,834,755) teach a braided suture strand comprising fibers of various polymers.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian W. Woo whose telephone number is (571) 272-4707. The examiner can normally be reached Mon.-Fri., 7:00 AM to 3:00 PM Eastern Time, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on (571) 272-4963. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 3731

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Julian W. Woo". The signature is written in a cursive, flowing style.

Julian W. Woo
Primary Examiner

December 23, 2006